

# MASTER VIEW KVM SWITCH



## USER MANUAL

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# CS-138A

**Note:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna;
- Increase the separation between the equipment and receiver;
- Connect the equipment into an outlet on a circuit different from that which the receiver is connected;
- Consult the dealer or an experienced radio/television technician for help.

# PACKING LIST

The complete Master View CS-138A package consists of:

- ♦ One CS-138A KVM Switch
- ♦ One Power Adapter
- ♦ One User Manual

Check to make sure that the unit was not damaged in shipping. If you encounter a problem, contact your dealer.

Read this manual thoroughly and follow the installation and operation procedures carefully to prevent any damage to the unit, and/or any of the devices connected to it.

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## OVERVIEW

The Master View CS-138A KVM Switch is a control unit that allows access to multiple computers from a single console (keyboard, monitor, and mouse). Before the development of the Master View, the only way to control multiple computer configurations from a single console was through a complex and costly network. Now, with the Master View CS-138A, you can easily access multiple computers in a cost effective manner.

A single Master View CS-138A can control up to 8 computers. Since units can be cascaded to three levels, in a full three stage installation up to 73 CS-138A Master View switches can control up to 512 computers - all from a single console.

Setup is fast and easy; plugging cables into their appropriate ports is all that is entailed. There is no software to configure, so there is no need to get involved in complex installation routines or be concerned with incompatibility problems. Since the CS-138A intercepts keyboard input directly, it works on any hardware platform and with all operating computers.

There are three convenient methods to access any computer connected to the installation: (1) using the pushbutton port selection switches located on each unit's front panel; (2) entering *Hotkey* combinations from the keyboard; and (3) selecting from menus provided by the On Screen Display (OSD) feature. A powerful *Quick View Scan* feature also permits auto scanning and monitoring the activities of all computers running on the installation one by one.

There is no better way to save time and money than with a Master View CS-138A installation. By allowing a single console to manage all the attached computers, a Master View CS-138A installation: (1) eliminates the expense of having to purchase a separate keyboard, monitor, and mouse for each computer; (2) saves all the space those extra components would take up; (3) saves on energy costs; and (4) eliminates the inconvenience and wasted effort involved in constantly moving from one computer to another.

# FEATURES

- ♦ Cascadable To Three Levels - Control Up to 512 Computers From a Single Console
  - ♦ No Software Required - Computer Selection via Front Panel Switches, Hotkeys, or On Screen Display (OSD)
  - ♦ Quick View Scan Feature for Monitoring User-Selected computers
  - ♦ PS/2 and Serial Mouse Emulation Provided For System Bootup
  - ♦ PS/2 Compatible Mouse Support - Microsoft Intellimouse Explorer and Logitech FirstMouse+ Support\*
  - ♦ SVGA, VGA, abd Multisync Monitor Support
  - ♦ Superior Video Quality: Up to 1920x1440; DDC; DDC2; DDC2B
  - ♦ LED Display for Easy Status Monitoring
  - ♦ Supports High Quality CS Series Custom KVM Cables
  - ♦ Rack Mountable in 19" computer Rack (1U)
  - ♦ Hot Pluggable, Add or Remove Computers without Powering Off the Switch
- \*    1. PS/2 compatible mouse support is for three button (wheel) mice.  
      2. The Logitech Mouse Ware program's Change Device procedure does not work on Microsoft NT systems.

# HARDWARE REQUIREMENTS

## CONSOLE

- A VGA, SVGA, or Multisync monitor capable of the highest resolution that you will be using on any computer in the installation.
- A PS/2 style mouse
- A PS/2 style keyboard

## COMPUTER

The following equipment must be installed on each computer:

- A VGA, SVGA or Multisync card.
- Either a 6-pin mini-DIN (PS/2 style), or DB-9 (standard serial), mouse port.
- Either a 6-pin mini-DIN (PS/2 Style) keyboard port with +5V DC on pin 4 and Ground on pin 3, or a 5-pin DIN (AT Style) keyboard port with +5V DC on pin 5 and ground on pin 4.\*

\* See the note under Cables in the next section.

## CABLES

Use of substandard cables may damage the connected devices or degrade overall performance. For optimum signal integrity and to simplify the layout, we strongly recommend that you use the following high quality CS Custom Cable sets:

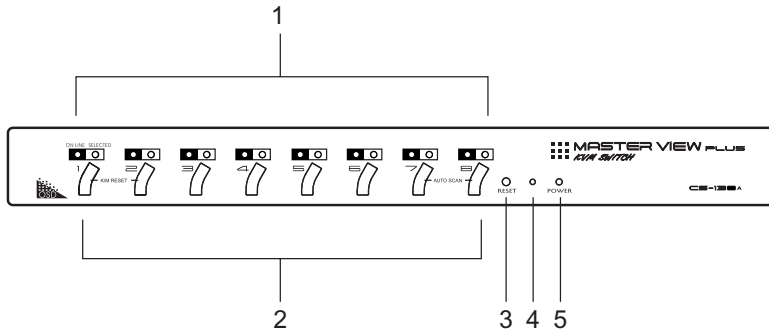
Connector Purpose	CS Cable Part Number
AT (5 pin DIN) Keyboard and Serial Mouse	2L-1001P/C (1.8m) <i>or</i> 2L-1003P/C (3m)
PS/2 (6 pin mini-DIN) Keyboard and Mouse	
Cascading Master Views	

- Note:**
1. If your computer uses a standard AT style keyboard socket you will need to purchase a PS/2-to-AT keyboard adapter (Part No. 2A-106, or any standard keyboard adapter).
  2. If your computer uses a standard 9 pin serial port for the mouse, you will need to purchase a special PS/2-to-Serial mouse adapter (Part No. 2A-105); a standard mouse adapter will probably not work).
  3. Because of the wiring and pin assignments, you cannot use a Serial-to-PS/2 adapter at the end that plugs into the CS-138A. Attempting to use a standard serial extender cable with adapters at both ends will fail.



# INTRODUCTION

## FRONT VIEW



### 1. Port LEDs

The Port LEDs provide status information about their corresponding CPU Ports. They come in pairs - one pair for each Port. The one on the left is the *On Line* LED; the one on the right is the *Selected Port* LED:

- The *On Line* LEDs light ORANGE to indicate that the computer attached to its corresponding port is up and running. If the LED is flashing, it indicates that the Port is being used for cascading to another Master View switch (see p. 8).
- A *Selected* LED lights GREEN to indicate that the computer attached to its corresponding port is the one that has the KVM focus. The LED is steady under normal conditions, but flashes when its port is accessed under *Auto Scan Mode* (see p. 30).

### 2. Port Selection Switches

Press a switch to access the computer attached to the corresponding port.

- Pressing Buttons 1 and 2 simultaneously for 3 seconds performs a *Keyboard and Mouse Reset*.
- Pressing 7 and 8 simultaneously starts *Auto Scan Mode* (see p. 30).

### 3. Reset

Use a thin object (such as the end of a paper clip, or a ballpoint pen), to press this recessed switch in to initiate a warm reset. If the switch is kept in for longer than three seconds, a cold reset takes place.

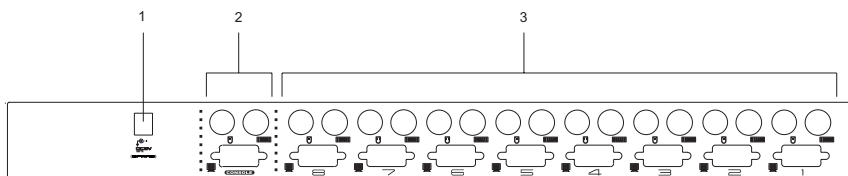
### 4. Sound Opening

System sounds (beeps, etc.), are emitted from this opening.

### 5. Power LED

Lights to indicate that the unit is receiving power.

## REAR VIEW



### 1. Power Jack

The unit is designed to be non-powered (external power is not required - its operating power comes from the computers). In general, the only time that external power is necessary is when you cascade it, or if operation becomes erratic because the unit isn't obtaining enough power from the computer connections. If you choose to use external power, the power adapter cable plugs in here.

### 2. Console Port Section

- ♦ If this is a first station unit, your monitor, keyboard and mouse plug in here.
- ♦ If this is a daisy chained unit, the cables that link back to a port on a higher Master View unit plug in here.

### 3. CPU Port Section

The cables that link to the computers plug in here.

# INSTALLATION

## BEFORE YOU BEGIN



1. Make sure that power to all the devices you will be connecting up have been turned off. You must unplug the power cords of any computers that have the *Keyboard Power On* function. Otherwise, the switch will receive power from the computer.
2. To prevent damage to your equipment, make sure that all devices on the installation are properly grounded.

## SINGLE STATION INSTALLATION

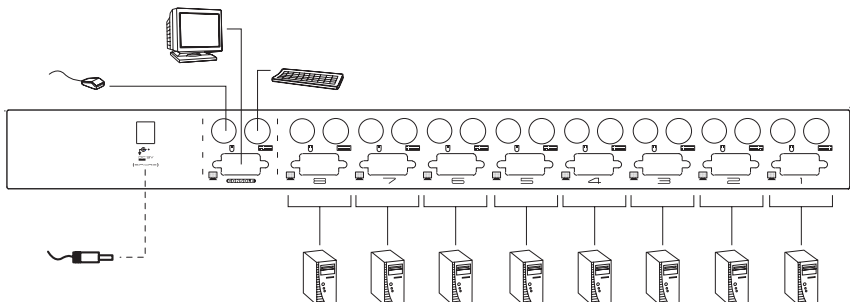
In a Single Stage installation, there are no additional Master View's cascaded down from the first unit. To set up a single stage installation do the following:

1. Plug your keyboard, mouse, and monitor into the unit's Console Ports.
2. Use KVM cable sets (as described in the *Cables* section on p. 4, to connect any available CS-138A CPU Port to the Keyboard, Video and Mouse ports of the computer you are installing.
3. If you choose to use external power, plug the power adapter cable into the Master View's Power Jack, then plug the adapter into an AC power source.

**Note:** Under non-powered operation, the unit gets its power from the computers via the cables. If a computer, only supplies 3.3V of power for the keyboard and mouse instead of 5V (as in the case of Notebooks, for example), the unit will not receive enough power, and you will need to use the external power adapter.

4. Turn on the power to the computers.

**Note:** If you choose to use external power, the Master View unit must be plugged in and receiving power prior to turning on the power to the computers.



## TWO STAGE INSTALLATION

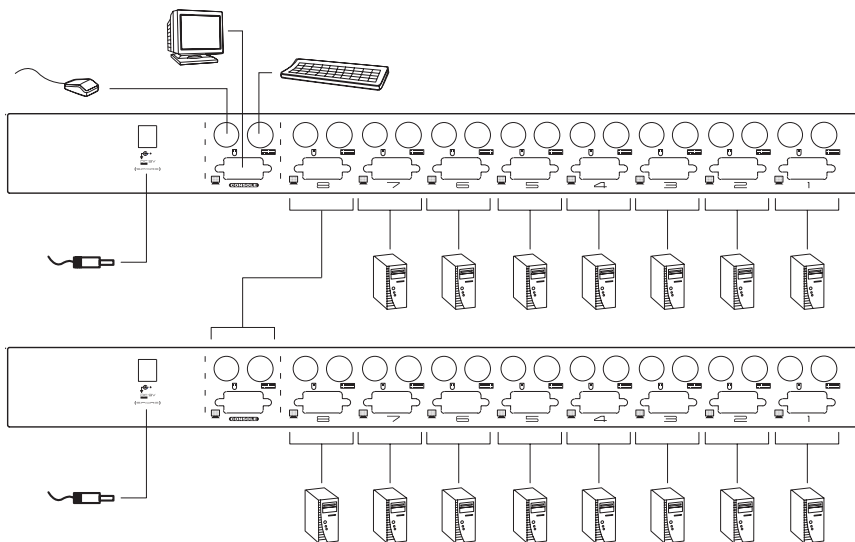
To control even more computers, up to eight additional Master View CS-138A units can be cascaded from the CPU ports of the First Stage unit. The cascaded Master Views that connect back to the First Stage unit are considered Second Stage units. As many as 64 computers can be controlled in a complete two stage installation. A table showing the relation between the number of computers and the number of Master View units needed to control them is provided in the Appendix.

**Note:** Mixing different Master View models on the same installation can cause problems with OSD port switching. We strongly recommend that all cascaded units be the same model as the First Stage unit.

To set up a two stage installation, do the following:

1. Make sure that power to all the devices you will be connecting up, including all preexisting devices on the installation, have been turned off.
2. Use a KVM cable set (described in the *Cables* section, p. 4), to connect any available CPU Port on the First Stage unit to the Console Port connectors of the Second Stage unit.
3. Use KVM cable sets (described in the *Cables* section, p. 4), to connect any available CPU port on the Second Stage unit to the Keyboard, Video, and Mouse ports of the computer you are installing.
4. Repeat steps 2 and 3 for any other Second Stage units you wish to connect.
5. Plug the power adapter cables for the Second Stage unit(s) into the Master View's Power Jack, then plug the adapter into an AC power source.
6. Plug in the power adapter for the First Stage Master View unit.
7. Turn on the power to all the computers.

**Note:** The Power On sequence requires that all Second Stage units be powered on first. After all the Second Stage units have been powered on, then the First Stage unit must be powered on next. After the Second and First stage units have been powered on, the computers can be powered on.



## THREE STAGE INSTALLATION

The procedures for setting up a three stage installation are essentially the same as for a two stage installation. With a three stage setup, as many as 512 computers can be controlled in a complete installation. A table showing the relation between the number of computers and the number of Master View units needed to control them is provided in the Appendix.

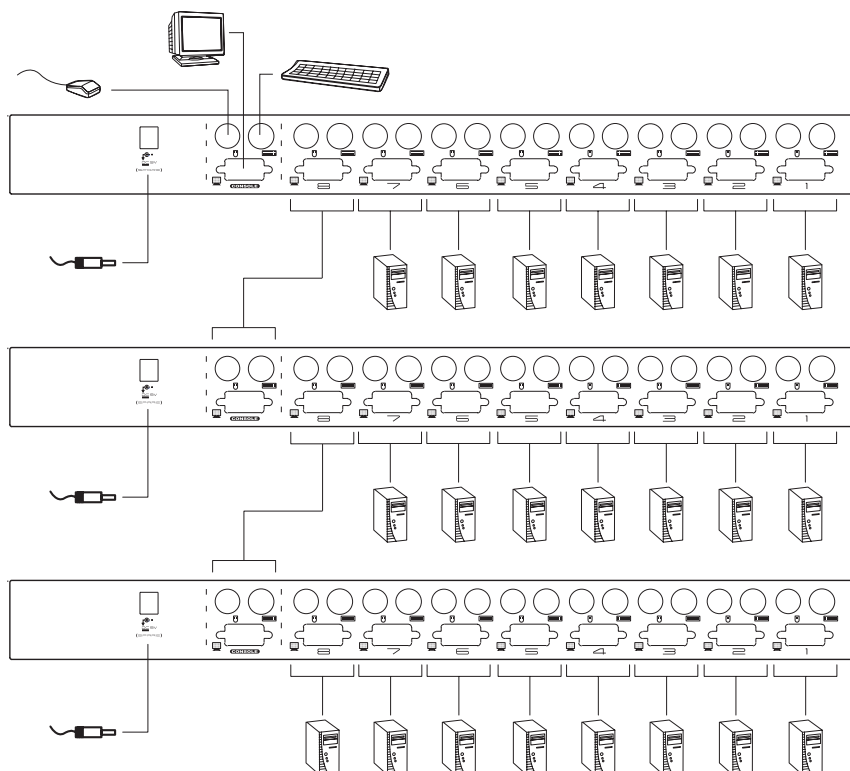
- Note:** 1. See the Note at the beginning of the *Two Stage Installation* section.  
2. Master View units cannot be cascaded beyond the third level.

To set up a three stage installation, do the following:

1. Make sure that power to all the devices you will be connecting up, including all preexisting devices on the installation, have been turned off.
2. Use a KVM cable set (described in the *Cables* section, p. 4), to connect any available CPU Port on the Second Stage unit to the Console Port connectors of the Third Stage unit.
3. Use KVM cable sets (described in the *Cables* section, p. 4), to connect any available CPU port on the Third Stage unit to the Keyboard, Video, and Mouse ports of the computers you are installing, as shown in the diagram on page 10.

1. Repeat steps 2 and 3 for any other Third Stage units you wish to connect.
2. Plug the power adapter cables for the Third Stage unit(s) into the Master View's Power Jack, then plug the adapter into an AC power source.
3. Plug in the power adapters for all the Second Stage Master View units.
4. Plug in the power adapter for the First Stage Master View unit.
5. Turn on the power to all the computers.

**Note:** The Power On sequence requires that all Third Stage units be powered on first. After they are all on, the Second Stage units must be powered on next. After all the Second Stage units are on, the First Stage unit must be powered on. Only after all the Master Views have been powered on in this sequence, can the computers be powered on.



# OPERATION

## HOT PLUGGING

The Master View CS-138A supports hot plugging. Components can be removed and added back into the installation by unplugging their cables from the CPU ports without the need to shut the unit down. For hot plugging to work properly, the following procedures must be observed:

- ♦ **Hot Plugging CPU Ports:**

When hot plugging cables from the CPU ports:

1. The cable must be plugged back into the *same port* it was removed from.
2. The mouse cable must be plugged in before the keyboard cable.
3. After plugging the cable back in, you must perform a **KVM Reset** on the First Stage unit (by pressing the Reset switch **In**).

- ♦ **Hot Plugging Console Ports:**

The unit supports hot plugging of the keyboard, monitor, and mouse. When hot plugging the mouse from the Master View's console mouse port:

1. You may unplug the mouse and plug it back in again (to reset the mouse, for example), as long as you use the *same mouse*.
2. If you plug in a different mouse, all the stations and all the computers on the installation must be shut down for 10 seconds, then restarted. (Refer back to the note describing the Power On sequence on p. 10, if necessary.)

**Note:** If, after hot plugging (or at any other time), there is no response to mouse and/or PS/2 keyboard input, simultaneously press and hold Port Select buttons 1 and 2 on the First Stage unit for 3 seconds to perform a PS/2 Keyboard and PS/2 Mouse reset.

## POWERING OFF AND RESTARTING

If it becomes necessary to Power Off one of the Master View units, before starting it back up you must do the following:

1. Shut down all the computers that are attached to the unit, as well as all the Master View stations and all the computers that are cascaded down from it (all the child Master View stations and the computers attached to them).

**Note:** 1. You must unplug the power cords of any computers that have the *Keyboard Power On* function that are connected to the shut down switches. Otherwise, the switches will still receive power from the computers.

2. If the unit is operating under external power, unplug the power adapter cable.
2. Wait 10 seconds, then plug the Master Views back in, starting with the last station in the chain and working back to the station you originally shut down.
3. After all the Master View's are up, power On the computers, starting with the ones attached to the last station in the chain and working back to the station you originally shut down.

## PORT SELECTION

The Master View CS-138A provides three methods to obtain instant access to any computer in your installation: Manual, *Hotkey*, and OSD.

### ♦ Manual

Simply press the appropriate *Port Selection Switch* on the Master View's front panel. After you press the switch, the *Selected* LED lights to indicate that the port has the KVM focus. The OSD (see p. 21) automatically switches to highlight the computer that you have selected.

- Note:** 1. On a cascaded installation, you must press the Port Selection switch on the Master View Station that connects directly to the computer you want to access.
2. Simultaneously pressing Port Selection buttons 7 and 8 on the First Stage unit initiates the *Auto Scan* feature in which all the ports currently selected for *Quick View* scanning (see *Set Quick View Ports*, p. 29), are cycled through. The length of time spent on each port is determined with the *Scan Duration* setting under the OSD's **F3 SET** function (see p. 26).



## ♦ Hotkey Navigation

Hotkey navigation allows you to conveniently provide KVM focus to a particular computer from the keyboard, instead of having to manually select it with a Port Selection switch. To select a port with the *Hotkey* method, do the following:

1. Press [Ctrl+Alt+Shift] to invoke the Hotkey function
2. Key in the Port ID number (see *Port ID Numbering*, p. x), then press [Enter].

**Note:** After invoking the Hotkey function with the [Ctrl+Alt+Shift] combination, you must key in the Port ID and press [Enter] within one second for each keypress.

## ♦ OSD

The On Screen Display (OSD) feature is invoked with a hotkey. To enter the OSD Main Menu, press the Ctrl key twice ([Ctrl] [Ctrl]). You can use either the left or right Ctrl keys, but they must both be on the same side (both left, or both right).

**Note:** You can optionally change the hotkey to the Scroll Lock key (see F6, below), in which case you would press [Scroll Lock] [Scroll Lock].

From there, either:

- ♦ Invoke the Hotkey function with [Ctrl+Alt+Shift]; key in the Port ID (see *Port ID Numbering*, below, for details); then press [Enter], or
- ♦ Navigate with the Arrow Keys to move the Highlight Bar to the port you want; then press [Enter].

# PORT ID NUMBERING

Each CPU Port on a Master View installation is assigned a unique *Port ID*. You can directly access any computer on any level of the installation by specifying the Port ID of the CPU port that the computer is connected to - either with the Hotkey port selection method, or with the OSD.

The Port ID is a one, two, or three digit number that is determined by the Stage Level and CPU Port number of the Master View unit that a computer is connected to. The first digit represents the CPU Port number of the First Stage unit; the second digit represents the CPU Port number of the Second Stage; the third digit represents the CPU Port number of the Third Stage.

- A computer attached to a First Stage unit has a one digit Port ID (from 1 - 8), that corresponds to the CPU Port number that the computer is connected to.
- A computer attached to a Second Stage unit has a two digit Port ID.

The first digit represents the CPU Port number on the First Stage unit that the Second Stage unit links back to; the second digit represents the CPU Port number on the Second Stage unit that the computer is connected to.

Therefore, a Port ID of **2 3** refers to a computer that is connected to CPU Port 3 of a Second Stage unit that links back to CPU Port 2 of the First Stage unit.

- Likewise, a computer attached to a Third Stage unit has a three digit Port ID. A Port ID of **2 4 1** refers to a computer that is connected to CPU Port 1 of a Third Stage unit, that links back to CPU Port 4 of a Second Stage unit, which, in turn, links back to CPU Port 2 of the First Stage unit.

### Port Key In Examples:

1. To access a computer attached to Port 3 of a Single Stage installation, key in **3** for the Port ID, as follows:

[Ctrl+Alt+Shift] + [\*] 3 [Enter]

2. To access a computer attached to Port 3 of a Second Stage unit that is cascaded down from Port 2 of the First Stage unit, key in **23** for the Port ID, as follows:

[Ctrl+Alt+Shift] + [\*] 2 3 [Enter]

**Note:** You must key in the numbers one at a time.

3. To access a computer attached to Port 8 of a Third Stage unit that links back to Port 4 of a Second Stage unit, which, in turn, links back to CPU Port 6 of the First Stage unit key in **648** for the Port ID, as follows:

[Ctrl+Alt+Shift] + [\*] 6 4 8 [Enter]

## HOTKEY SUMMARY TABLE

Hotkey	Action
[Ctrl] + [Ctrl]	Invokes OSD (Default).
[Scroll Lock] + [Scroll Lock]	Invokes OSD (Alternate Method).
[Ctrl+Alt+Shift] [Port ID] [Enter]	Switches access to the computer that corresponds to the Port ID number (see Port Key In Examples, above).
[Ctrl+Alt+Shift] [0] [Enter]	To invoke Auto Scan mode.

# OSD OPERATION

## OSD HOTKEY NAVIGATION

Hotkey navigation can be used under OSD mode. To hotkey select a port from the OSD, do the following:

1. Activate the OSD by pressing the Ctrl key twice ([Ctrl] [Ctrl]).  
**Note:** If the OSD is already active, when you are at the Main Menu you can key in the hotkey without first having to press [Ctrl] [Ctrl].
  2. You can optionally change the hotkey to the Scroll Lock key (see F6, below), in which case you would press [Scroll Lock] [Scroll Lock].
2. From the OSD Main Menu, key in the Port ID for the computer you wish to access (see Port ID Numbering, above, for details), then press [Enter].

The console now controls the computer that you have selected, and the OSD automatically closes.

When you key in the Port ID, note the following:

- You must key in the Port ID and press [Enter] within 1 second for each keypress after pressing the [Ctrl+Alt+Shift] combination.
- Number keys must be pressed from the regular keyboard; not from the numeric keypad.
- The keys must be pressed and released one key at a time.
- If you submit an incorrect Port ID, an error message displays, and you are returned to the OSD Main Menu.

## OSD OVERVIEW

The On Screen Display (OSD) provides a menu driven interface to handle the computer switching procedure. Although Hotkey switching still works, using OSD is a great deal more convenient - especially in large, daisy chained installations where a great number of computers are connected to a several Master View CS-138A units, and it is difficult to keep track of which port a particular computer is attached to. All operations start from the OSD Main Menu. To pop up the Main Menu, tap either Ctrl key twice. Note: You can optionally change the hotkey to the Scroll Lock key (see F6, below), in which case you would press [Scroll Lock] [Scroll Lock].

OSD always starts in List view, with the highlight bar at the same position it was in the last time it was closed.

From the Main Menu, you can go directly to any port by keying in [Ctrl+Alt+Shift], then the Port ID Number, and then pressing [Enter].

Note:

With this method, although access switches to the port you just specified, the highlight bar on the OSD screen doesn't move.

LIST: ALL					
PN	QV	PC	NAME		
2-5	▶	*	ABC		▲
2-6			XYZ		▲
2-7					
2-8					
3					
4					
5-1					▼
5-2					▼
F1 GOTO	F2 SCAN	F3 LIST	F4 QV	F5 EDIT	F6 SET

## OSD NAVIGATION

- ♦ [Esc] cancels the current selection, or dismisses the current menu and moves back to the menu one level above. If you are at the highest menu level, it deactivates OSD.
- ♦ Use the Up and Down Arrow Keys to move up or down through the list one line at a time.
- ♦ Use [Pg Up] and [Pg Dn] to move up or down through the list one screen at a time.
- ♦ Click on the Up and Down Triangle symbols to move up or down through the list one line at a time.
- ♦ Click on the Up and Down Arrow symbols to move up or down through the list one screen at a time
- ♦ To activate a port, move the Highlight Bar to it then press [Enter].
- ♦ After executing any action, you automatically go back to the menu one level above.

## OSD MAIN MENU HEADINGS

Heading	Explanation
PN	This column lists the Port ID numbers (Station Number - Port Number) for all the CPU Ports on the installation. The simplest method to access a particular computer (assuming you know which port it is attached to)
QV	If a port has selected for Quick View scanning (see F2 and F4, below), an arrowhead symbol displays in this column to indicate so.
PC	Lists all the computers that are Powered On and are On Line.
NAME	If a port has been given a name (see F5, below), its name appears in this column.

## THE FUNCTION KEYS:

Pressing a Function Key brings up a related submenu that is used to configure and control the OSD to make it convenient for you to work with. For example, you can: rapidly switch to any port; scan selected ports only; limit the list you wish to view; designate a port to be included in the Quick View scan group; create or edit a port name; or make OSD setting adjustments.

### ♦ F1 GOTO:

GoTo allows you to switch directly to a port by the following methods:


- a) Move the Highlight Bar to the port you want then press [Enter].
- b) Key in the *Port ID* or *Name*, then press [Enter].

**Note:** GoTo has a special feature that narrows the list of available choices as you type the name. For example, if the first letter you type is *a*, the list only displays those ports whose names begin with *a*. If the next letter you type is *b*, the list is further narrowed down to only those ports whose names begin with *ab*, etc.

To return to the OSD Main Menu without making a choice, press [Esc].

### ♦ F2 SCAN:

Pressing [F2] initiates *Quick View Scanning*, in which the OSD cycles through all the ports that are currently selected in the List view (see F3, below), and displays each one for the amount of time set with the Set Scan Duration function (see F6, below). When you want to stop at a particular location, press the [Spacebar] to stop scanning.

- Note:**
1. If the scanning stops on an empty port, or one where the computer is attached but is powered Off, the monitor screen will be blank, and the mouse and keyboard will have no effect. To recover, key in the Hotkey sequence (see Hotkey Selection, above), for any Port ID that has an active computer attached.
  2. As the OSD cycles through the selected ports, an  appears in front of the Port ID display as each computer is accessed to indicate that the computer is being accessed under *Quick View Scan Mode*.

### ♦ F3 LIST:


This function brings up a submenu that lets you broaden or narrow the scope of which ports the OSD lists. The choices and their meanings are given in the table, below:

Choice	Meaning
ALL	Lists the Port ID numbers and Names (if names have been specified - see F5) of all the ports on the installation.
QVIEW	Lists only the ports that have been selected for Quick View Scanning (see F4, below).
POWERED ON + QVIEW	Lists only the ports that have been selected for Quick View scanning (see F4, below), and that have their attached computers Powered On.
QVIEW + NAME	Lists only the ports that have been selected for Quick View scanning (see F4, below), and have been assigned names (see F5, below).
NAME	Lists only the ports that have been assigned names (see F5, below).
POWERED ON	Lists only the ports that have their attached computers Powered On.

To make a choice, move the Highlight Bar to it, then press [Enter]. An icon appears before the choice to indicate that it is the currently selected one.

- Note:**
1. You can access any port on any list by using the Navigation Keys then pressing [Enter].
  2. If you select a port that does not have a computer attached to it, or if the attached computer is powered Off, the OSD will still switch to it, and will not show an error.





#### ♦ **F4 QV:**

You can broaden or narrow the number of ports that get automatically scanned by selecting only the ones you want to scan with the QV (Quick View Scan) function. [F4] is a toggle that selects or deselects the currently highlighted port for the *Quick View Scanning* function (see F2, above). To select/deselect a port for Quick View Scanning:

1. Use the Up and Down Arrow Keys or Mouse to move the highlight bar to the port.
2. Press [F4].

When a port has been selected for Quick View Scanning, an arrowhead displays in the QV column to indicate so. When a port is deselected, the arrowhead disappears.

#### ♦ **F5 EDIT:**

For convenience in remembering which computer is attached to a particular port, every port can be named. The *Edit* function allows you to name the currently highlighted CPU Port (if it doesn't already have a name), or to modify/delete the Port Name if it does. To edit a Port Name:

1. Use the Navigation Keys to move the highlight bar to the port you want (you can use the F3 List function to broaden or narrow the port selection list).
2. Press [F5].
3. Key in the new Port Name, or modify/delete the old one.

The maximum number of characters allowed for the Port Name is 15. Legal characters include:

- ♦ All alpha characters: a - z; A - Z
- ♦ All numeric characters: 0 - 9
- ♦ +, -, /, :, ., and Space

Case does not matter; OSD displays the Port Name in all capitals no matter how they were keyed in.

4. When you have finished editing, press [Enter] to have the change take effect. To abort the change, press [Esc].

#### ♦ F6 SET:

When you press [F6] an OSD configuration submenu. To change a setting, move the highlight bar to the choice you want, then press [Enter]. On the submenu that appears next, move the highlight bar to the choice you want and press [Enter]. An icon of a pointing finger indicates which choice is the currently selected one. An explanation of the choices is given in the table, below:

Setting	Function
CHANNEL DISPLAY DURATION	Determines how long a Port ID is displayed for. There are two choices: <b>3 Seconds</b> - which displays the Port ID for 3 seconds after a port change has taken place; and <b>Always On</b> - which displays the Port ID at all times.
CHANNEL DISPLAY POSITION	Allows you to position where the Port ID is shown on the screen. After you highlight this item and press [Enter], the menu disappears and the Port ID is displayed. Use the Arrow Keys, Pg Up, Pg Dn, Home, End, and 5 (on the numeric keypad with Num Lock off), to position the Port ID display, then press [Enter] to lock the position and return to the Set submenu.
CHANNEL DISPLAY MODE	Selects how the Port ID is displayed. There are three choices: <b>PN + NAME</b> (the Number plus the Name); <b>PN</b> (the Number alone); or <b>NAME</b> (the Name alone).
SCAN DURATION	Determines how long the display dwells on each port when it cycles through the selected ports in Quick View Scan Mode. The available options are: 3, 5, 10, 15, 20, 30, 40, and 60 seconds.
CLEAR THE NAME LIST	Clears all Port Names from the Name List. You are asked to confirm before the procedure goes on. Key in Y, then press [Enter] to confirm. While the names are being cleared, a message appears on the display to indicate so. After the names have been cleared, another message appears to indicate that the procedure completed successfully seconds.

(Table continues on next page)

(F6 SET: continued)

Setting	Function
RESTORE DEFAULT VALUES	Clears all settings from memory, and returns the unit to the factory defaults. You are asked to confirm before the procedure goes on. Key in <b>Y</b> , then press [Enter] to confirm. While the settings are being cleared, a message appears on the display to indicate so. After the settings have been cleared, another message appears to indicate that the procedure completed successfully.
OSD ACTIVATING HOTKEY	Selects which Hotkey combination will activate the OSD function: <b>[Ctrl] [Ctrl]</b> or <b>[Scroll Lock] [Scroll Lock]</b> . The default is the Ctrl key combination, but this may conflict with programs running on the computers, in which case, the Scroll Lock option should be selected.
SET PASSWORD	Allows you to set a password in order to control access to: Locking/Unlocking the Console; Clearing the Name List; and Restoring Default Values. See the <i>OSD Security Features</i> section, below, for details.

## FACTORY DEFAULT SETTINGS

The factory default settings are as follows:

Setting	Default
Display Duration	Always On
Display Mode	The Port Number plus the Port Name
Scan Duration	3 Seconds

## OSD SECURITY

In order to prevent unauthorized access to the computers, the OSD provides a password security feature. If a password has been set, the OSD will request that the user specify it before allowing entry. To set a password:

1. Highlight this item, then press [Enter].

A screen appears that allows you to key in the password. The password may be up to 8 characters long, and can consist of any combination of letters and numbers (A - Z, 0 - 9).

2. Key in the new password, then press [Enter].

You are asked to key in the password again, in order to confirm that it is correct

3. Key in the password again, then press [Enter].

If the two entries match, the new password is accepted and the screen displays the following message:

SET PASSWORD OK

If the entries do not match, the screen displays the message:

PASSWORD NOT MATCH

in which case you must start again from the beginning.

**Note:** To modify or delete a previous password, access the Password function as in Step 1, above, then use the backspace or delete key to erase the individual letters or numbers.

# APPENDIX

## MASTER VIEW - COMPUTER CONNECTION TABLE

The following tables indicate the relationship between the number of Master View Units and the number of computers that they control:

MVs	Computers	MVs	Computers	MVs	Computers	MVs	Computers
1	8	20	134 - 141	39	267 - 274	58	400 - 407
2	8-15	21	141 - 148	40	274 - 281	59	407 - 414
3	15 - 22	22	148 - 155	41	281 - 288	60	414 - 421
4	22 - 29	23	155 - 162	42	288 - 295	61	421 - 428
5	29 - 36	24	162 - 169	43	295 - 302	62	428 - 435
6	36 - 43	25	169 - 176	44	302 - 309	63	435 - 442
7	43 - 50	26	176 - 183	45	309 - 316	64	442 - 449
8	50 - 57	27	183 - 190	46	316 - 323	65	449 - 456
9	57 - 64	28	190 - 197	47	323 - 330	66	456 - 463
10	64 - 71	29	197 - 204	48	330 - 337	67	463 - 470
11	71 - 78	30	204 - 211	49	337 - 344	68	470 - 477
12	78 - 85	31	211 - 218	50	344 - 351	69	477 - 484
13	85 - 92	32	218 - 225	51	351 - 358	70	484 - 491
14	92 - 99	33	225 - 232	52	358 - 365	71	491 - 498
15	99 - 106	34	232 - 239	53	365 - 372	72	498 - 505
16	106 - 113	35	239 - 246	54	372 - 379	73	505 - 512
17	113 - 120	36	246 - 253	55	379 - 386		
18	120 - 127	37	253 - 260	56	386 - 393		
19	127 - 134	38	260 - 267	57	393 - 400		

## TROUBLESHOOTING

Symptom	Possible Cause	Action
Erratic behavior.	Unit not receiving enough power under self-powered operation.	Use the Power Adapter that was supplied with the unit to provide
Pressing the Hotkeys gets no response.	The connection from the selected port to the target computer has been broken, or the computer is turned OFF.	<p>Check the Online LED for the selected port. If it is not lit:</p> <ol style="list-style-type: none"> <li>1. Manually press one of the Select switches to connect to a computer that is powered ON.</li> <li>2. Check the cables to make sure they are all properly connected.</li> </ol>
	Improper keyboard reset.	<ol style="list-style-type: none"> <li>1. Reset the keyboard (and mouse) by simultaneously pressing Buttons 1 and 2 on the First Stage unit for 3 seconds.</li> <li>2. Unplug the keyboard connector from the Console Keyboard Port, then plug it back in.</li> </ol>
	Improper Master View reset.	<p>Turn off all Master View units and wait five seconds before turning them back on.</p> <p><b>Note:</b> If the unit is operating under Self-powered mode (without the optional Power Adapter), you must unplug the power cords of any computers that have the Keyboard 'Power On' function, otherwise the switch will still be receiving power from the computers.</p>
	Incorrectly keying in the Port ID.	After invoking the Hotkey function with the [Numlock /] combination, be sure to key in the Port ID and press [Enter] within one second for each key.
Mouse is not responding.	Improper mouse reset.	<ol style="list-style-type: none"> <li>1. Reset the mouse (and keyboard) by simultaneously pressing Buttons 1 and 2 on the First Stage unit for 3 seconds.</li> <li>2. Unplug the mouse connector from the Console Mouse Port, then plug it back in.</li> </ol>

## SPECIFICATIONS

Function		Specification
Computer Connections	Direct	8
	Max	512 (via Cascade)
Port Selection		Front Panel Switches Hotkeys On Screen Display
LEDs	Power	1 (Orange)
	On Line Port	8 (Orange)
	Selected Port	8 (Green)
Connectors	Keyboard	1 x 6 pin mini-DIN female - Console 8 x 6 pin mini-DIN female - CPU Ports
	Mouse	1 x 6 pin mini-DIN female - Console 8 x 6 pin mini-DIN female - CPU Ports
	Video	1 x HDB-15 female - Console 8 x HDB-15 male - CPU Ports
Scan Interval (OSD Select)		3, 5, 10, 15, 20, 30, 40, 60 secs.
Power Consumption		DC 9V; 1.08W (max)
Operating Temperature		5 - 40° C
Storage Temperature		-20 - 60° C
Humidity		0 - 80% RH; Noncondensing
Housing		Metal
Weight		2850 g
Dimensions (L x W x H)		483 x 150 x 44.5 mm (19" 1U)



## **LIMITED WARRANTY**

IN NO EVENT SHALL THE DIRECT VENDOR'S LIABILITY EXCEED THE PRICE PAID FOR THE PRODUCT FROM THE DIRECT, INDIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THE PRODUCT, DISK OR ITS DOCUMENTATION.

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